Kentucky Method 64-415-03
Revised 1/10/03
Supersedes KM 64-415-02
Dated 12/13/01

NON-VOLATILE TEST FOR ASPHALT MASTIC

1. SCOPE: This test method covers measuring the resulting loss of volatile material when a sample of asphalt mastic is heated in an oven at 221-230 °F for 24 hours.

2. APPARATUS:

   2.1. Provide an electrically-heated oven, conforming to all oven requirements in ASTM E 145, *Standard Specification for Gravity-Convection and Forced-Ventilation Ovens*, Type II B, ~~D6, *Loss on Heating of Oil and Asphaltic Compounds*,~~ capable of maintaining a test temperature of 221-230 °F.

   2.2. Provide a disposable tin cup, capable of holding a 10-g sample. Ensure the cup is able to maintain a near-constant weight when exposed to heat (230 °F) for 24 hours.

   2.3. Provide a balance conforming to AASHTO M231, *Weighing Devices Used in the Testing of Materials*, (Table 1) Class B.

3. SAMPLE: Ensure that the size of the test sample is approximately 10 g.

4. PROCEDURE:

   4.1. Weigh the tin cup to the nearest 0.001 g, and record the weight as “B”.

   4.2. Place approximately 10 g of the material to be tested in the previously-weighed tin cup.

   4.3. Weigh the cup and material to the nearest 0.001 g, and record the weight as “A”.

   4.4. Place the cup in an oven maintained at 221-230 °F for a period of 24 hours.

   4.5. Remove the cup from the oven, and allow it to cool to room temperature in a dessicator.

   4.6. Weigh the cup and material to the nearest 0.001 g, and record the weight as “C”.

5. CALCULATIONS: Calculate the loss of volatile material according to the following equation:

$$Percent\ of\ Non-Volatile\ Material = 100\left(\frac{C-B}{A-B}\right)$$

where:

A = the weight of the tin cup and material;

B = the weight of the tin cup; and

C = the weight of the tin cup and material after 24 hours in the oven.

6. REPORT: Report the percent of non-volatile material to the nearest whole percent.

APPROVED _____
Director
Division of Materials

DATE _____1/10/03_____

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